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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/494,954	02/01/2000	Roger A. McCurdy	TRW(TE)4170	4158
26294	7590	08/16/2005	EXAMINER	
TAROLLI, SUNDHEIM, COVELL & TUMMINO L.L.P. 526 SUPERIOR AVENUE, SUITE 1111 CLEVEVLAND, OH 44114			LUM VANNUCCI, LEE SIN YEE	
			ART UNIT	PAPER NUMBER
			3611	

DATE MAILED: 08/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/494,954

Applicant(s)

MCCURDY, ROGER A.

Examiner

Ms. Lee S. Lum

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/23/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. A Request for Reinstatement for Appeal and Supplemental Appeal Brief were filed 5/23/05.

Upon reconsideration of the case, it is agreed that the previous Action was erroneous because Hermann 6595544 was misapplied. However, this finding also renders the Request for Reinstatement (unfortunately) moot because there is no final rejection with which to proceed to the Board.

Examiner presents this Action with the intent of reopening prosecution. *She sincerely apologizes for the inconvenience.*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 is unclear because the first line in the body states "...said sensor module including:", after which an accelerometer, an acoustic sensor, a protection device, and controller, are recited. This language is inconsistent with the preceding claims (and the Spec) because only the crash sensors/accelerometers and the acoustic sensor are "included in the sensor module".

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-22 (14 as best understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over Fayyad et al 5916289 in view of Holroyd et al 5261505.

Fayyad discloses a system for protecting a vehicle occupant comprising

Plurality of crash sensors/accelerometers 20, 22, 24,

Including one accelerometer 24 as a front crush zone sensor located at a forward part of the vehicle,

Including at least one accelerometer 20, 22 as side crush zone sensors located at a side part of the vehicle,

Safing sensors (unidentified in circuits 14 and 18; c2, ln 23-24),

Occupant protection device/airbags 28, 30, 32, and,

Controller 12 controlling actuation of the device in response to separate signals from the sensors including

Controlling actuation of the device in response to both safing signal and the signal from the front crash sensor (c2, ln 37-46), or

Both safing signal and (at least one) side crash signal (c2, ln 46-56).

The reference does not disclose the safing sensor as acoustic, while Holroyd shows this omni-directional, ultrasonic sensor 12, comprising elements 14 and 20.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this alternate sensor, as shown in Holroyd, as another reliable sensor by which the safing function may be effected, thus increase applicability. It is very well-known that various types of sensors may be employed as either primary, or secondary/redundant, crash sensors, thus are considered functionally equivalent.

The references also disclose a method for controlling actuation of an occupant protection device, the steps derived from the structure/means provided above.

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3. The prior art made of record, and not relied upon, is considered pertinent to the disclosure: Willerton et al 6226578, Gray et al 5620202, Heintz et al 4164263.

4. RESPONSE TO REMARKS

As explained above, upon reconsideration, Examiner has provided new rejections. *Again*, she sincerely apologizes for the inconvenience.

The rejections employing Fayyad in view of Holroyd are predicated on the obviousness of using an acoustic sensor (as one type of many) as a safing sensor. It is well-known that various types of sensors may be used as either the primary or secondary/redundant sensors, the latter known as safing or arming sensors. Accelerometers are very well-known for their dual capacities. However, other types are functionally equivalent, so long as the particular sensor acts to confirm the crash event, and prevent inadvertent actuation of the protection device.

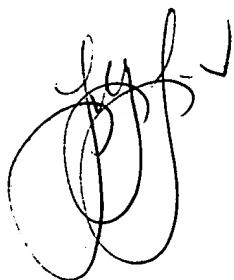
As an example of this equivalence, Willerton et al 6226578 provides, in column 4, ln 2-5, that "equivalent components" may comprise the safing sensor 7, as alternatives for an accelerometer. Other types of sensors are also discussed in the prior art.

5. Communication with USPTO/Examiner

Any inquiry concerning this communication, or others, should be directed to Ms. Lum at 571 272-6649, M-F, 9-5. If attempts to reach the examiner are unsuccessful, her supervisor, Ms. Lesley Morris is at 571 272-6651. Our fax number is 571 273 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for unpublished applications: private PAIR only, for published applications: private or public PAIR. For more information re PAIR: <http://pair-direct.uspto.gov>. Questions re private PAIR: contact the Electronic Business Center (EBC) at 866 217-9197.

Ms. Lee S. Lum
Examiner
8/16/05

A handwritten signature in black ink, appearing to be 'Lum', with a large, stylized loop and a checkmark-like flourish at the end.